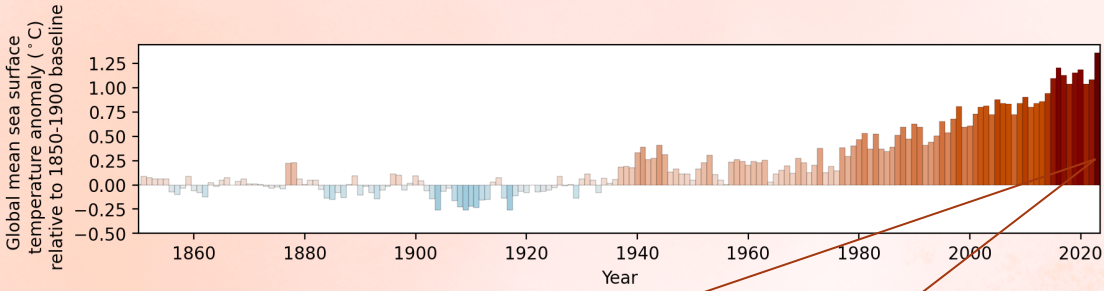
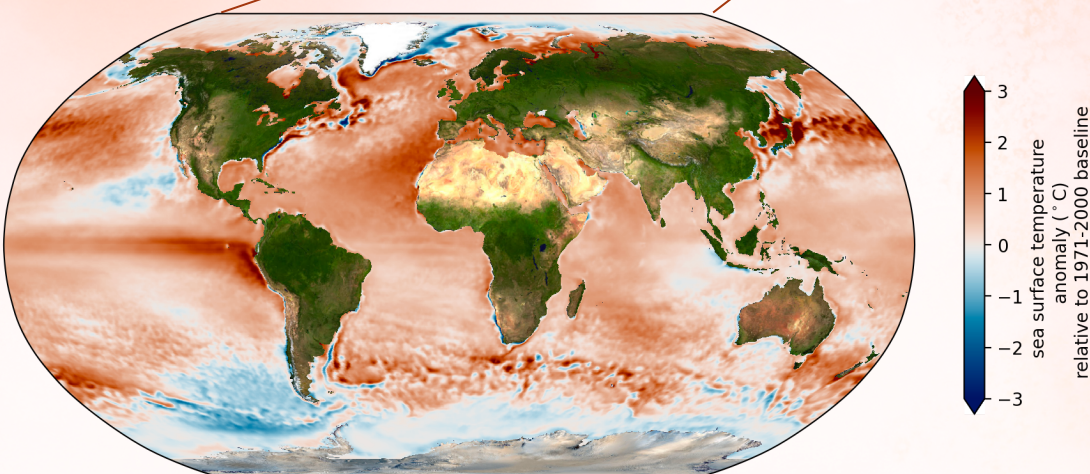
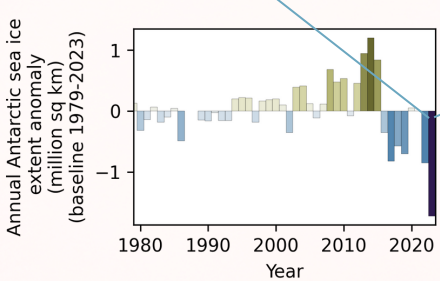
2023: A Year of Extremes in the Ocean



Record high global mean sea surface temperatures
Red colours across most of the ocean indicate where the ocean surface in 2023 was warmer than a 1971-2000 baseline (below).



2023



Record low Antarctic sea ice cover
There was less Antarctic sea ice in 2023 than previously recorded. The Southern Ocean is also cooling, an indication of changing winds and currents.

The ocean is already feeling the effects of climate change
However, the interactions between the oceans, atmosphere, land and ice are complex and chaotic. What records will be broken in 2024?

Data: SST time series from NOAA National Centers for Environmental information, Climate at a Glance: Global Time Series,
SST anomaly map from NOAA 1/4° Daily Optimum Interpolation Sea Surface Temperature (DOISST) Huang et al. (2020)
Sea ice data from National Snow and Ice Data Center
Land cover image from NASA Blue Marble

Visualisation made using python and Canva. Code to reproduce figures available at github.com/claireyung/2023OceanViz